Stemming vision loss with stem cells.

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Funding Grants: Autologous Retinal Pigmented Epithelial Cells Derived from Induced Pluripotent Stem Cells for the Treatment of Atrophic Age Related Macular Degeneration

Public Summary:
Dramatic advances in the field of stem cell research have raised the possibility of using these cells to treat a variety of diseases. The eye is an excellent target organ for such cell-based therapeutics due to its ready accessibility, the prevalence of vasculo- and neurodegenerative diseases affecting vision, and the availability of animal models to demonstrate proof of concept. In fact, stem cell therapies have already been applied to the treatment of disease affecting the ocular surface, leading to preservation of vision. Diseases in the back of the eye, such as macular degeneration, diabetic retinopathy, and inherited retinal degenerations, present greater challenges, but rapidly emerging stem cell technologies hold the promise of autologous grafts to stabilize vision loss through cellular replacement or paracrine rescue effects.

Scientific Abstract:
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